User Manual

DVI Pure Fiber Optic Extender Dual Link
ODC

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For technical support, check with the Email: support@dtrovision.com

Cautions:
1. Purelink logo is our own trademark of Dtrovision LLC.,Inc.
2. Any of the products may be changed without any notice in order to improve the function of the product.
3. The design and specification of the product may be changed without any prior notice.

Package Content

Each DVI Pure Fiber Optic Extender Dual Link package includes the following items;

- ODC TX/RX Unit
- DVI-D Dual Link Cable – 1.2m, 2pcs
- 12V Power Adapter: 2 pcs
- User manual

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Description, General Specification

- Send DVI video signal and digital audio signal to long distance using pure fiber optic cable (multimode 8 strands)
- Owing to its compact size and low power design ODC connects monitors only for DVI-D dual link, PDP, and projectors at the lowest price
- ODC uses fully insulated fiber optic cable and is rarely affected by electronic wave or electric noise. The best quality of DVI video signal and digital audio signal can be achieved in every industrial site and place

ITEM	DESCRIPTION
Model Name	ODC
Input Signal	Digital RGB (DVI), Digital Audio (OPTICAL, COAXIAL)
Output Signal	Digital RGB (DVI), Digital Audio (COAXIAL)
Resolution	VGA~QXGA
Distance	500m (1640ft) at 2560x1600
Receptacle	DC Power Jack DVI 29 Pin Female LC type fiber optic connecter 8 strands
HDCP/DDC Support	Compliant/Save EEprom
Interface	DDWG DVI 1.0
Power Consumption	12V Power Adapter(Included), Max 10 W
Dimension	125x111x35 mm
Weight	TX, RX: 0.40Kg each

Environmental and Reliability Specifications

Recommended environmental conditions for the operation are temperature range of 10°C~40°C, non-condensing humidity levels of 10%-80%, and altitude ceiling of 3,000 meters (9,840 feet).

Environmental limits for transportation are temperature range of -25°C ~ 60°C, non-condensing humidity levels of 5%~95%, and altitude ceiling of 15,000 meters (49,200feet)

Environmental limits for storage are established at temperature range of -20°C~45°C, non-condensing humidity levels of 5%~95%, and altitude ceiling of 3,000 meters (9,840 feet)

The DVI Pure Fiber Optic Extender Dual Link is expected to function for more than 50,000 hours of use at a 90% confidence level. The device is tested according to the identical standards for testing LCD monitors.

Main Features

High Quality Picture - No Signal Loss and Digital Noise Free

Our ODC is built to deliver the highest quality picture preserving the native resolutions of the video sources without any signal loss. At the same time, the digital noises that may affect the picture quality will be eliminated. Due to the nature of the digital signals and passing through multiple stack of connection, it is important to eliminate the digital noises and boost the signal strength to preserve/enhance the video signal quality, which ODC does.

Signal Amplification for signal reliability and long length signal transmission.

ODC gets internal or external DC 12V power to run an internal chipset, which was designed to transmit high quality visual signal to long distance. It has a specialized EQ chipset on input and out port for long distance application, allowing DVI-D Dual Link cable up to 10m.

Compact and Practical Design

The ODC is designed compactly and practically allowing customers more ease and convenience

Long distance signal transmission over fiber optic cable

DVI signal can be transmitted minimum 500m (1640ft) to maximum 1000m (3280ft) over multimode fiber optic cable without signal loss

Compliance to DVI Ver 1.0

ODC fully supports DDWG standard, DVI 1.0

Video Connection

Step 1: Ensure the digital video/audio source and display is turned off
Step 2: Connect the digital DVI-D Dual Link cable and fiber optic cable to ODC module
Step 3: Connect power adapter to the transmitter (TX/RX) module of ODC
Step 4: Connect power code to the power adapter and plug in to power outlet
Step 5: Turn on the display
Step 6: Turn on the source

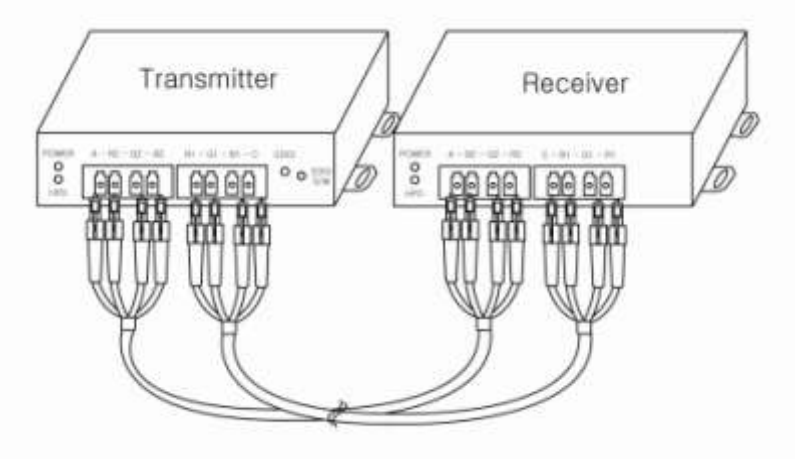
EDID data saving

Step 1: Connect DVI Input port on ODC **TX** unit to display such monitor or HDTV
Step 2: Push EDID S/W for 3~4 seconds
Step 3: EDID LED is illuminated for about 1 second if EDID was saved correctly

- If EDID was not saved correctly, EDID LED blinks 6 times. The default EDID when it is shipped is QXGA 2650*1600.
- EDID saving is to display the best resolution between the video source and the display

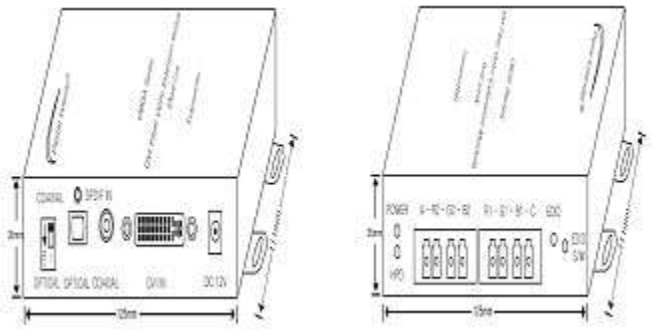
Connection of fiber optic cable

Connect fiber optic cables one to one according to the signs on ports.



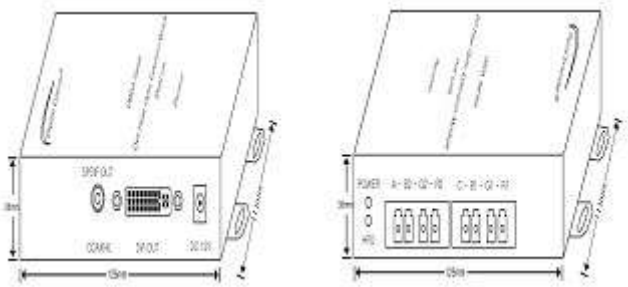
Mechanical Specification

Dimension: 125x111x35 mm / 4.9 ‘’ x 4.4’’ x 1.4’’ (inch)



TX Functioning part
DVI In: DVI-D Dual Link Input port
SPDIF In: Digital Audio (Optical, Coaxial) Input port
DIP S/W: Digital Audio (Optical, Coaxial) selection switch
A-R2-G2-B2-R1-G1-B1-C: Fiber optic cable connection port
DC-12V: power input port

Display part
POWER LED: display Power on/off
EDID LED: display the status of EDID appropriate operation
EDID S/W: EDID operation switch
HPD LED: display the status of DVI Input



RX Functioning part
DVI Out: DVI-D Dual Link Output port
SPDIF Out: Digital Audio (Coaxial) Output port
A-B2-G2-R2-C-B1-G1-R1: Fiber optic cable connection port
DC-12V: power input port

Display part
POWER LED: display Power on/off
HPD LED: display the status of DVI Input

1-6 Mechanical Specification

Technical Specification

Data transmission speed: 3.3 Gbps (Per color)
Digital Video Bandwidth: 25~268.5 Mhz

Resolution: Up to QXGA (2560x1600)@60Hz / 1080P

Input/output signal standard: Digital RGB, TMDS, SPDIF

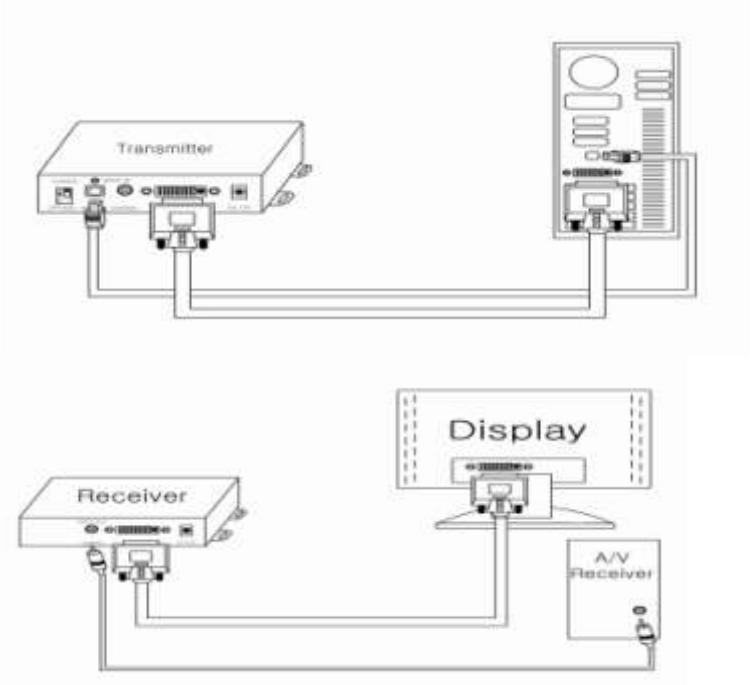
Maximum length: 2560*1600p -> 500m (1640ft)
Optional -> 1000m (3280ft)

Light Source: 850 nm Vcsel
Fiber Optic cable: 50/125 & 62.5/125 multimode

Input connector type: DVI Female 29P / LC type Fiber Optic connecter * 8 strands
Digital Audio (OPTICAL, COAXIAL)
Output connector type: DVI Female 29P / LC type Fiber Optic connecter * 8 strands
Digital Audio (COAXIAL)

Power consumption: TX 4.5 Watts (Max), RX 6.2 Watts (Max)
Power supply: DC 12V, 2A

Product connections



Warranty Information

2(Two) Year Warranty

Dtrovision LLC warrants this DVI Pure Fiber Optic Extender Dual Link to be free from defects in workmanship and materials, under normal use and service, for a period of two (2) years from the date of purchase from Dtrovision LLC or its authorized resellers.

If a product does not work as warranted during the applicable warranty period, Dtrovision LLC shall, at its option and expense, repair the defective product or part, deliver to customer an equivalent product or part to replace the defective item, or refund to customer the purchase price paid for the defective product.

All products that are replaced will become the property of Dtrovision LLC.

Replacement products may be new or reconditioned.

Any replaced or repaired product or part has a ninety (90) day warranty or the reminder of the initial warranty period, whichever is longer.

Dtrovision LLC. shall not be responsible for any software, firmware, information, or memory data of customer contained in, stored on, or integrated with any products returned to Dtrovision LLC for repair under warranty or not.

Warranty Limitation and Exclusion

Dtrovision LLC shall have no further obligation under the foregoing limited warranty if the product has been damaged due to abuse, misuse, neglect, accident, unusual physical or electrical stress, unauthorized modifications, tampering, alterations, or service other than by Dtrovision LLC or its authorized agents, causes other than from ordinary use or failure to properly use the product in the application for which said product is intended.

Troubleshooting

The DVI Pure Fiber Optic Extender Dual Link is designed for years of trouble free service, please refer to the troubleshooting chart below if experiencing issues with the device.

Problem	Solution
No picture(or signal)	1. Ensure the power LED is illuminated. 2. Check if TX or RX module is properly connected to sources or displays. 3. Check if fiber optic cable is properly connected. 4. Make sure that the display is only for DVI-D Dual Link 5. Reboot source device after the connection of fiber optic cables.
Poor picture or noise	1. Ensure the graphic resolution is correctly set up. - Select “Settings” on Window Display properties - Check if the resolution is lower than QXGA (2560x1600)@60Hz 2.Restart the system 3.Turn off DC power adapter, disconnect fiber optic cable, reconnect the cables and power on. 4, Check electric ground level of power for DVI Devices 5. Make sure that saved EDID is same as that of display
No Sound	1. Check if the Audio (coaxial) plug or jack is securely connected 2.Check if the input / output audio is digital 3. Ensure the power LED is illuminated.